

+3
 1 CACCGGCGAA GGAGGATCGA ATTCCTGCAG CCCGCTATCT GCAGGCCGCC ACCATGGCCG M A D
 GTGGCCGCTT CCTCCTAGCT TAAGGACGTC GGGCGATAGA CGTCCGGCCG TGGTACCGGC
 +3 D Y L I S G G T S Y V P D D G L T A Q Q L
 61 ACTACCTGAT TAGTGGGGGC ACCTCCTACG TGCCAGACGA CGGACTCACA GCACAGCAGC
 TGATGGACTA ATCACCCCGG TGCAGGATGC ACGGTCTGCT GCCTGAGTGT CGTGTCTGTCG
 +3 L F N C G D G L T Y N D F L I L P G Y I D
 121 TCTTCAACTG CGGAGACGGC CTCACCTACA ATGACTTTCT CATTCTCCCT GGGTACATCG
 AGAAGTTGAC GCCTCTGCCG GAGTGGATGT TACTGAAAGA GTAAGAGGGA CCCATGTAGC
 +3 D F T A D Q V D L T S A L T K K I T L K T
 181 ACTTCACTGC AGACCAGGTG GACCTGACTT CTGCTCTGAC CAAGAAAATC ACTCTTAAGA
 TGAAGTGACG TCTGGTCCAC CTGGACTGAA GACGAGACTG GTTCTTTTAG TGAGAATTCT
 +3 T P L F S S P M D T V T E A G M A I A M A
 241 CCCCACTGGT TTCCTCTCCC ATGGACACAG TCACAGAGGC TGGGATGGCC ATAGCAATGG
 GGGGTGACCA AAGGAGAGGG TACCTGTGTC AGTGTCTCCG ACCCTACCGG TATCGTTACC
 +3 A L T G G I G F I H H N C T P E F Q A N E
 301 CGCTTACAGG CGGTATTGGC TTCATCCACC ACAACTGTAC ACCTGAATTC CAGGCCAATG
 GCGAATGTCC GCCATAACCG AAGTAGGTGG TGTTGACATG TGGACTTAAG GTCCGGTTAC
 +3 E V R K V K K Y E Q G F I T D P V V L S P
 361 AAGTTCGGAA AGTGAAGAAA TATGAACAGG GATTCATCAC AGACCCTGTG GTCCTCAGCC
 TTCAAGCCTT TCACTTCTTT ATACTTGTCC CTAAGTAGTG TCTGGGACAC CAGGAGTCGG
 +3 P K D R V R D V F E A K A R H G F C G I P
 421 CCAAGGATCG CGTGCGGGAT GTTTTTGAGG CCAAGGCCCG GCATGGTTTC TGCGGTATCC
 GGTTCTTAGC GCACGCCCTA CAAAACTCC GGTTCCGGGC CGTACCAAAG ACGCCATAGG
 +3 P I T D T G R M G S R L V G I I S S R D I
 481 CAATCACAGA CACAGGCCCG ATGGGGAGCC GCTTGGTGGG CATCATCTCC TCCAGGGACA
 GTTAGTGTCT GTGTCCGGCC TACCCCTCGG CGAACCACCC GTAGTAGAGG AGGTCCCTGT
 +3 I D F L K E E E H D C F L E E I M T K R E
 541 TTGATTTTCT CAAAGAGGAG GAACATGACT GTTTCTTGGA AGAGATAATG ACAAAGAGGG
 AACTAAAAGA GTTCTCTCTT CTTGTACTGA CAAAGAACCT TCTCTATTAC TGTTTCTCCC
 +3 E D L V V A P A G I T L K E A N E I L Q R
 601 AAGACTTGGT GGTAAGCCCT GCAGGCATCA CACTGAAGGA GGCAAATGAA ATTCTGCAGC
 TTCTGAACCA CCATCGGGGA CGTCCGTAGT GTGACTTCCT CCGTTTACTT TAAGACGTCG
 +3 R S K K G K L P I V N E D D E L V A I I A
 661 GCAGCAAGAA GGGAAAGTTG CCCATTGTAA ATGAAGATGA TGAGCTTGTG GCCATCATTG
 CGTCGTTCTT CCCTTTCAAC GGGTAACATT TACTTCTACT ACTCGAACAC CGGTAGTAAC
 +3 A R T D L K K N R D Y P L A S K D A K K Q
 721 CCCGGACAGA CCTGAACAAC AATCCGGAAT ACCCACTAGC CTCAAAGAT GCCAAGAAAC
 GGGCCTGTCT GGAATTCTTC TTAGCCCTGA TGGGTGATCG GAGGTTTCTA CGGTCTTTTG
 +3 Q L L C G A A I G T H E D D K Y R L D L L
 781 AGCTGCTGTG TGGGGCAGCC ATTGGCACTC ATGAGGATGA CAAGTATAGG CTGGACTTGC
 TCGACGACAC ACCCCGTCGG TAACCGTGAG TACTCCTACT GTTCATATCC GACCTGAACG
 +3 L A Q A G V D V V V L D S S Q G N S I F Q
 841 TCGCCCAGGC TGGTGTGGAT GTAGTGGTTT TGGACTCTTC CCAGGGAAAT TCCATCTTCC
 AGCGGGTCCG ACCACACCTA CATCACCAAA ACCTGAGAAG GGTCCCTTTA AGGTAGAAGG
 +3 Q I N M I K Y I K D K Y P N L Q V I G G N
 901 AGATCAATAT GATCAAGTAC ATCAAAGACA AATACCCTAA TCTCCAAGTC ATTGGAGGCA
 TCTAGTTATA CTAGTTCATG TAGTTTCTGT TTATGGGATT AGAGGTTTCAG TAACCTCCGT

FIG. 1A

+3 N V V T A A Q A K N L I D A G V D A L R V
961 ATGTGGTCAC TGCTGCCAG GCCAAGAACC TCATTGATGC AGGTGTGGAT GCCCTGCGGG
TACACCAGTG ACGACGGGTC CGGTTCTTGG AGTAACTACG TCCACACCTA CGGGACGCCC
+3 V G M G S G S I C I I Q E V L A C G R P Q
1021 TGGGCATGGG AAGTGGCTCC ATCTGCATTA TCCAGGAAGT GCTGGCCTGT GGGCGGCCCC
ACCCGTACCC TTCACCGAGG TAGACGTAAT AGGTCCTTCA CGACCGGACA CCCGCCGGGG
+3 Q A T A V Y K V Y E Y A R R F G V P V I A
1081 AAGCAACAGC AGTGTAACAG GTGTATGAGT ATGCACGGCG CTTTGGTGT TCCGGTCATTG
TTCGTTGTCTG TCACATGTTT CACATACTCA TACGTGCCGC GAAACCACAA GGCCAGTAAC
+3 A D G G I Q N V G H I A K A L A L G A S T
1141 CTGATGGAGG AATCCAAAAT GTGGGTCATA TTGCGAAAGC CTTGGCCCTT GGGGCTCCA
GACTACCTCC TTAGGTTTTA CACCCAGTAT AACGCTTTCG GAACCGGGA CCCCGAGGT
+3 T V M M G S L L A A T T E A P G E Y F F S
1201 CAGTCATGAT GGGCTCTCTC CTGGCTGCCA CCACTGAGGC CCCTGGTGAA TACTTCTTTT
GTCAGTACTA CCCGAGAGAG GACCGACGGT GGTGACTCCG GGGACCACTT ATGAAGAAAA
+3 S D G I R L K K Y R G M G S L D A M D K H
1261 CCGATGGGAT CCGGCTAAAG AAATATCGCG GTATGGGTTT TCTCGATGCC ATGGACAAGC
GGCTACCCTA GGCCGATTTC TTTATAGCGC CATAACCAAG AGAGCTACGG TACCTGTTCG
+3 H L S S Q N R Y F S E A D K I K V A Q G V
1321 ACCTCAGCAG CCAGAACAGA TATTTTCAGTG AAGCTGACAA AATCAAAGTG GCCCAGGGAG
TGGAGTCGTC GGTCTTGTCT ATAAAGTCAC TTCGACTGTT TTAGTTTCAC CGGGTCCCTC
+3 V S G A V Q D K G S I H K F V P Y L I A G
1381 TGTCTGGTGC TGTGCAGGAC AAAGGTCAC TCCACAAATT TGTCCCTTAC CTGATTGCTG
ACAGACCAG ACACGTCCTG TTTCCAGTT AGGTGTTTAA ACAGGGAATG GACTAACGAC
+3 G I Q H S C Q D I G A K S L T Q V R A M M
1441 GCATCCAACA CTCATGCCAG GACATTGGTG CCAAGAGCTT GACCCAAGTC CGAGCCATGA
CGTAGGTTGT GAGTACGGTC CTGTAACCAC GGTTCCTCGAA CTGGGTTTCAG GCTCGGTACT
+3 M Y S G E L K F E K R T S S A Q V E G G V
1501 TGTACTCTGG GGAGCTTAAG TTTGAGAAGA GAACGTCCTC AGCCCAGGTG GAAGGTGGCG
ACATGAGACC CCTCGAATTC AAACCTTCT CTTGCAGGAG TCGGGTCCAC CTTCCACCGC
+3 V H S L H S Y E K R L F
1561 TCCATAGCCT CCATTCTGAT GAGAAGCGGC TTTTCTGATC TAGCTCGACA TGATAAGATA
AGGTATCGGA GGTAAGCATA CTCTTCGCCG AAAAGACTAG ATCGAGCTGT ACTATTCTAT
1621 CATTGATGAG TTTGGACAAA CCACAACTAG AATGCAGTGA AAAAAATGCT TTATTTGTGA
GTAACACTC AAACCTGTTT GGTGTTGATC TTACGTCACT TTTTTTACGA AATAAACACT
1681 AATTTGTGAT GCTATTGCTT TATTTGTGAA ATTTGTGATG CTATTGCTTT ATTTGTAACC
TTAAACACTA CGATAACGAA ATAAACACTT TAAACACTAC GATAACGAAA TAAACATTGG
1741 ATTATAAGCT GCAATAAACA AGTTAAACAAC AACAAATTGCA TTCATTTTAT GTTTTCAGGTT
TAATATTCTGA CGTTATTTGT TCAATTGTTG TTGTTAACGT AAGTAAAATA CAAAGTCCAA
1801 CAGGGGGAGG TGTGGGAGGT TTTTAAAGC AAGTAAAACC TCTACAAATG TGGTAGATCA
GTCCCCCTCC ACACCTTCCA AAAAATTTTCG TTCATTTTGG AGATGTTTAC ACCATCTAGT
1861 TTTAAATGTT AGCGAAGAAC ATGTGAGCAA AAGGCCAGCA AAAGGCCAGG AACCGTAAAA
AAATTTACAA TCGCTTCTTG TACACTCGTT TTCCGGTCGT TTTCCGGTCC TTGGCATTTT
1921 AGGCCGCGTT GCTGGCGTTT TTCCATAGGC TCCGCCCCC TGACGAGCAT CACAAAAATC
TCCGGCGCAA CGACCGCAA AAGGTATCCG AGGCGGGGGG ACTGCTCGTA GTGTTTTTAG
1981 GACGCTCAAG TCAGAGGTGG CGAAACCCGA CAGGACTATA AAGATACCAG GCGTTTCCCC
CTGCGAGTTC AGTCTCCACC GCTTTGGGCT GTCCTGATAT TTCTATGGTC CGCAAAGGGG

FIG. 1B

2041 CTGGAAGCTC CCTCGTGCGC TCTCCTGTTC CGACCCTGCC GCTTACCGGA TACCTGTCCG
GACCTTCGAG GGAGCACGCG AGAGGACAAG GCTGGGACGG CGAATGGCCT ATGGACAGGC
2101 CCTTTCTCCC TTCGGGAAGC GTGGCGCTTT CTCAATGCTC ACGCTGTAGG TATCTCAGTT
GGAAAGAGGG AAGCCCTTCG CACCGCGAAA GAGTTACGAG TGCGACATCC ATAGAGTCAA
2161 CGGTGTAGGT CGTTCGCTCC AAGCTGGGCT GTGTGCACGA ACCCCCCGTT CAGCCCCGACC
GCCACATCCA GCAAGCGAGG TTCGACCCGA CACACGTGCT TGGGGGGCAA GTCGGGCTGG
2221 GCTGCGCCTT ATCCGGTAAC TATCGTCTTG AGTCCAACCC GGTAAGACAC GACTTATCGC
CGACGCGGAA TAGGCCATTG ATAGCAGAAC TCAGGTGGG CCATTCTGTG CTGAATAGCG
2281 CACTGGCAGC AGCCACTGGT AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG
GTGACCGTCG TCGGTGACCA TTGTCTTAAT CGTCTCGCTC CATACATCCG CCACGATGTC
2341 AGTTCTTGAA GTGGTGGCCT AACTACGGCT ACACTAGAAG AACAGTATTT GGTATCTGCG
TCAAGAACTT CACCACCGGA TTGATGCCGA TGTGATCTTC TTGTCATAAA CCATAGACGC
2401 CTCTGCTGAA GCCAGTTACC TTCGGAAAAA GAGTTGGTAG CTCTTGATCC GGCAAAACAAA
GAGACGACTT CGGTCAATGG AAGCCTTTTT CTCAACCATC GAGAACTAGG CCGTTTGT
2461 CCACCGCTGG TAGCGGTGGT TTTTTGTGTT GCAAGCAGCA GATTACGCGC AGAAAAAAG
GGTGGCGACC ATCGCAACCA AAAAAACAAA CGTTCGTCGT CTAATGCGCG TCTTTTTTTC
2521 GATCTCAAGA AGATCCTTTG ATCTTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAAACT
CTAGAGTTCT TCTAGGAAAC TAGAAAAGAT GCCCCAGACT GCGAGTCACC TTGCTTTTGA
2581 CACGTTAAGG GATTTTGGTC ATGGCTAGTT AATTAAGCTG CAATAAACAA TCATTATTTT
GTGCAATTCC CTAAAACCAG TACCGATCAA TTAATTGAC GTTATTTGTT AGTAATAAAA
2641 CATTGGATCT GTGTGTTGGT TTTTGTGTG GGCTTGGGG AGGGGGAGGC CAGAATGACT
GTAACCTAGA CACACAACCA AAAACACAC CCGAACCCCT TCCCCCTCCG GTCTTACTGA
2701 CCAAGAGCTA CAGGAAGGCA GGTGAGAGC CCCACTGGAC AAACAGTGGC TGGACTCTGC
GGTTCTCGAT GTCCTTCCGT CCAGTCTCTG GGGTGACCTG TTTGTACCCG ACCTGAGACG
2761 ACCATAACAC ACAATCAACA GGGGAGTGAG CTGGATCGAG CTAGAGTCCG TTACATAACT
TGGTATTGTG TGTTAGTTGT CCCCTCACTC GACCTAGCTC GATCTCAGGC AATGTATTGA
2821 TACGGTAAAT GGCCCGCCTG GCTGACCGCC CAACGACCCC CGCCATTGA CGTCAATAAT
ATGCCATTTA CCGGGCGGAC CGACTGGCG GTTGCTGGGG GCGGGTAACT GCAGTTATTA
2881 GACGTATGTT CACATAGTAA CGCCAATAGG GACTTTCCAT TGACGTCAAT GGGTGGAGTA
CTGCATACAA GGGTATCATT GCGGTTATCC CTGAAAGGTA ACTGCAGTTA CCCACCTCAT
2941 TTTACGGTAA ACTGCCCCACT TGGCAGTACA TCAAGTGTAT CATATGCCAA GTACGCCCCC
AAATGCCATT TGACGGGTGA ACCGTCATGT AGTTCACATA GTATACGGTT CATGCGGGGG
3001 TATTGACGTC AATGACGGTA AATGGCCCGC CTGGCATTAT GCCCAGTACA TGACCTTATG
ATAACTGCAG TTAGTGCCAT TTACCGGGCG GACCGTAATA CGGGTCATGT ACTGGAATAC
3061 GGACTTTCCT ACTTGGCAGT ACATCTACGT ATTAGTCATC GCTATTACCA TGGTGATGCG
CCTGAAAGGA TGAACCGTCA TGTAGATGCA TAATCAGTAG CGATAATGGT ACCACTACGC
3121 GTTTTGGCAG TACATCAATG GGCGTGATA GCGGTTTGAC TCACGGGGAT TTCCAAGTCT
CAAAACCGTC ATGTAGTTAC CCGCACCTAT CGCCAAACTG AGTGCCCTA AAGGTTTACA
3181 CCACCCCAT TACGTCAATG GGAGTTTGT TTGGCACCAA AATCAACGGG ACTTTCCAAA
GGTGGGGTAA CTGCAGTTAC CCTCAAACAA AACCCTGGTT TTAGTTGCC TGAAAGGTTT
3241 ATGTCGTAAC AACTCCGCCC CATTGACGCA AATGGGCGGT AGGCGTGTAC GGTGGGAGGT
TACAGCATTG TTGAGGCGGG GTAAGTCGCT TTACCCGCCA TCCGCACATG CCACCTCCA
3301 CTATATAAGC AGAGCTCGTT TAGTGAACCG TCAGATCGCC TGGAGACGCC ATCCACCTG
GATATATTCT TCTCGAGCAA ATCACTTGGC AGTCTAGCGG ACCTCTGCGG TAGGTGCGAC
3361 TTTTGACCTC CATAGAAGAC ACCGGGACCG ATCCAGCCTC CGCGGCCGGG AACGGTGCAT
AAAACCTGGAG GTATCTTCTG TGGCCCTGGC TAGGTCGGAG GCGCCGGCCC TTGCCACGTA

FIG. 1C

09/846,637 - 052402
204250-259402

3421 TGGAACGCGG ATTCCCCGTG CCAAGAGTGA CGTAAGTACC GCCTATAGAG TCTATAGGCC
 ACCTTGCGCC TAAGGGGCAC GGTTCTCACT GCATTCATGG CGGATATCTC AGATATCCGG
 3481 CACCCCCTTG GCTTCTTATG CATGCTATAC TGTTTTTTGGC TTGGGGTCTA TACACCCCGG
 GTGGGGGAAC CGAAGAATAC GTACGATATG ACAAAAACCG AACCCAGAT ATGTGGGGGC
 3541 CTTCTCATG TTATAGGTGA TGGTATAGCT TAGCCTATAG GTGTGGGTTA TTGACCATTA
 GAAGGAGTAC AATATCCACT ACCATATCGA ATCGGATATC CACACCCAAT AACTGGTAAT
 3601 TTGACCACTC CCCTATTGGT GACGATACTT TCCATTACTA ATCCATAACA TGGCTCTTTG
 AACTGGTGAG GGGATAACCA CTGCTATGAA AGGTAATGAT TAGGTATTGT ACCGAGAAAC
 3661 CCACAACTCT CTTTATTGGC TATATGCCAA TACACTGTCC TTCAGAGACT GACACGGACT
 GGTGTTGAGA GAAATAACCG ATATACGGTT ATGTGACAGG AAGTCTCTGA CTGTGCCTGA
 3721 CTGTATTTTT ACAGGATGGG GTCTCATTTA TTATTTACAA ATTCACATAT ACAACACCAC
 GACATAAAAA TGTCCTACCC CAGAGTAAAT AATAAATGTT TAAGTGATA TGTGTGGTG
 3781 CGTCCCCAGT GCCCGCAGTT TTTATTAAAC ATAACGTGGG ATCTCCACGC GAATCTCGGG
 GCAGGGGTCA CGGGCGTCAA AAATAATTTG TATTGCACCC TAGAGGTGCG CTTAGAGCCC
 3841 TACGTGTTC GGACATGGGC TCTTCTCCGG TAGCGGCGGA GCTTCTACAT CCGAGCCCTG
 ATGCAACAAG CTGTACCCG AGAAGAGGCC ATCGCCGCCT CGAAGATGTA GGCTCGGGAC
 3901 CTCCCATGCC TCCAGCGACT CATGGTCGTT CGGCACTCC TTGCTCCTAA CAGTGGAGGC
 GAGGGTACGG AGGTCGCTGA GTACCAGCGA GCCGTGAGG AACGAGGATT GTCACCTCCG
 3961 CAGACTTAGG CACAGCACGA TGCCACCAC CACCAGTGTG CCGCACAAAG CCGTGGCGGT
 GTCTGAATCC GTGTCGTGCT ACGGGTGGTG GTGGTCACAC GGCGTGTTC GGCACCGCCA
 4021 AGGGTATGTG TCTGAAAATG AGCTCGGGGA GCGGGCTTGC ACCGCTGACG CATTTGGAAG
 TCCCATACAC AGACTTTTAC TCGAGCCCCT CGCCCGAACG TGGCGACTGC GTAAACCTTC
 4081 ACTTAAGGCA GCGGCAGAAG AAGATGCAGG CAGCTGAGTT GTTGTGTTCT GATAAGAGTC
 TGAATTCCTG CGCCGTCTTC TTCTACGTCC GTCGACTCAA CAACACAAGA CTATTCTCAG
 4141 AGAGGTAACCT CCCGTTGCGG TGCTGTTAAC GGTGGAGGGC AGTGTAGTCT GAGCAGTACT
 TCTCCATTGA GGGCAACGCC ACGACAATTG CCACCTCCCG TCACATCAGA CTCGTCATGA
 4201 CGTTGCTGCC GCGCGCGCCA CCAGACATAA TAGCTGACAG ACTAACAGAC TGTTCTTTTC
 GCAACGACGG CCGCGCGCGT GGTCTGTATT ATCGACTGTC TGATTGTCTG ACAAGGAAAG
 MCS

 4261 CATGGGTCTT TTCTGCAGTC ACCCGGGGGA TCCTTCGAAC GTAGCTCTAG ATTGAGTCGA
 GTACCCAGAA AAGACGTCAG TGGGCCCCCT AGGAAGCTTG CATCGAGATC TAAGTCAGCT
 4321 CGTTACTGGC CGAAGCCGCT TGGAATAAGG CCGGTGTGCG TTTGTCTATA TGTTATTTTC
 GCAATGACCG GCTTCGGCGA ACCTTATTCC GGCCACACGC AAACAGATAT ACAATAAAG
 4381 CACCATATTG CCGTCTTTTG GCAATGTGAG GGCCCGGAAA CCTGGCCCTG TCTTCTTGAC
 GTGGTATAAC GGCAGAAAAC CGTTACACTC CCGGGCCTTT GGACCGGGAC AGAAGAACTG
 4441 GAGCATTCCT AGGGGTCTTT CCCCTCTCGC CAAAGGAATG CAAGGTCTGT TGAATGTCTG
 CTCGTAAGGA TCCCAGAAA GGGGAGAGCG GTTTCCTTAC GTTCCAGACA ACTTACAGCA
 4501 GAAGGAAGCA GTTCCTCTGG AAGCTTCTTG AAGACAAACA ACGTCTGTAG CGACCCTTTG
 CTTCTTCGT CAAGGAGACC TTCGAAGAAC TTCTGTTTGT TGCAGACATC GCTGGGAAAC
 4561 CAGGCAGCGG AACCCCCAC CTGGCGACAG GTGCCTCTGC GGCCAAAAGC CACGTGTATA
 GTCCGTCGCC TTGGGGGGTG GACCCCTGTC CACGGAGACG CCGGTTTTCG GTGCACATAT
 4621 AGATACACCT GCAAAGGCGG CACAACCCCA GTGCCACGTT GTGAGTTGGA TAGTTGTGGA
 TCTATGTGGA CGTTTCCGCC GTGTTGGGGT CACGGTGCAA CACTCAACCT ATCAACACCT
 4681 AAGAGTCAAA TGGCTCTCCT CAAGCGTATT CAACAAGGGG CTGAAGGATG CCCAGAAGGT
 TTCTCAGTTT ACCGAGAGGA GTTCGCATTA GTTGTTCCTT GACTTCCTAC GGGTCTTCCA
 4741 ACCCCATTGT ATGGGATCTG ATCTGGGGCC TCGGTGCACA TGCTTTACAT GTGTTTAGTC
 TGGGGTAACA TACCCTAGAC TAGACCCCGG AGCCACGTGT ACGAAATGTA CACAAATCAG

FIG. 1D

4801 GAGGTTAAAA AAACGTCTAG GCCCCCGAA CCACGGGGAC GTGGTTTTTC TTTGAAAAAC
CTCCAATTTT TTTGCAGATC CGGGGGGCTT GGTGCCCCTG CACCAAAAGG AAACTTTTTG
4861 ACGATAATAC CATGGGTAAG TGATATCTAC TAGTTGTGAC CGGCGCCTAG TGTGACAAT
TGCTATTATG GTACCCATTC ATCATAGATG ATCAACACTG GCCGCGGATC ACAACTGTTA
4921 TAATCATCGG CATAGTATAT CGGCATAGTA TAATACGACT CACTATAGGA GGGCCACCAT
ATTAGTAGCC GTATCATATA GCCGTATCAT ATTATGCTGA GTGATATCCT CCCGGTGGTA
4981 GTCGACTACT AACCTTCTTC TCTTTCCTAC AGCTGAGATC ACCGGTAGGA GGGCCATCAT
CAGCTGATGA TTGGAAGAAG AGAAAGGATG TCGACTCTAG TGGCCATCCT CCCGGTAGTA
5041 GAAAAAGCCT GAACACCCG CGACGTCTGT CGCGAAGTTT CTGATCGAAA AGTTCGACAG
CTTTTTTCGGA CTTGAGTGGC GCTGCAGACA GCGCTTCAAA GACTAGCTTT TCAAGCTGTC
5101 CGTCTCCGAC CTGATGCAGC TCTCGGAGGG CGAAGAATCT CGTGCTTTCA GCTTCGATGT
GCAGAGGCTG GACTACGTCG AGAGCCTCCC GCTTCTTAGA GCACGAAAGT CGAAGCTACA
5161 AGGAGGGCGT GGATATGTCC TGCGGGTAAA TAGCTGCGCC GATGGTTTCT ACAAAGATCG
TCCTCCCGCA CCTATACAGG ACGCCCATTT ATCGACGCGG CTACCAAAGA TGTTTCTAGC
5221 TTATGTTTAT CGGCACTTTG CATCGGCCGC GCTCCCGATT CCGGAAGTGC TTGACATTGG
AATACAAATA GCCGTGAAAC GTAGCCGGCG CGAGGGCTAA GGCCTTCACG AACTGTAACC
5281 GGAATTCAGC GAGAGCCTGA CCTATTGCAT CTCCCGCCGT GCACAGGGTG TCACGTGCA
CCTTAAGTCG CTCTCGGACT GGATAACGTA GAGGGCGGCA CGTGTCACAG AGTGGACGT
5341 AGACCTGCCT GAAACCGAAC TGCCCGCTGT TCTGCAACCC GTCGCGGAGC TCATGGATGC
TCTGGACGGA CTTTGGCTTG ACGGGCGACA AGACGTTGGG CAGCGCCTCG AGTACCTACG
5401 GATCGCTGCG GCCGATCTTA GCCAGACGAG CGGGTTTCGGC CCATTTCGGAC CGCAAGGAAT
CTAGCGACGC CGGCTAGAAT CGGTCTGCTC GCCCAAGCCG GGTAAGCCTG GCGTTCCTTA
5461 CGGTCAATAC ACTACATGGC GTGATTTTCAT ATGCGCGATT GCTGATCCCC ATGTGTATCA
GCCAGTTATG TGATGTACCG CACTAAAGTA TACGCGCTAA CGACTAGGGG TACACATAGT
5521 CTGGCAAACGT GTGATGGACG ACACCGTCAG TGCGTCCGTC GCGCAGGCTC TCGATGAGCT
GACCGTTTGA CACTACCTGC TGTGGCAGTC ACGCAGGCAG CGCGTCCGAG AGCTACTCGA
5581 GATGCTTTGG GCCGAGGACT GCCCCGAAGT CCGGCACCTC GTGCACGCGG ATTTCCGGCTC
CTACGAAACC CGGCTCCTGA CGGGGCTTCA GGCCGTGGAG CACGTGCGCC TAAAGCCGAG
5641 CAACGAATGTC CTGACGGACA AAGCCCGCAT AACAGCGGTC ATTGACTGGA CCGAGGCGAT
GTTGTTACAG GACTGCCTGT TACCGGCGTA TTGTGCGCCAG TAACTGACCT CGCTCCGCTA
5701 GTTCGGGGAT TCCCAATACG AGGTCGCCAA CATCTTCTTC TGGAGGCCGT GGTGCGCTTG
CAAGCCCCTA AGGGTTATGC TCCAGCGGTT GTAGAAGAAC ACCTCCGGCA CCAACCGAAC
5761 TATGGAGCAG CAGACGCGCT ACTTCGAGCG GAGGCATCCG GAGCTTGACG GATCGCCGCG
ATACCTCGTC GTCTGCGCGA TGAAGCTCGC CTCCGTAGGC CTCGAACGTC CTAGCGGCGC
5821 GCTCCGGGCG TATATGCTCC GCATTGGTCT TGACCAACTC TATCAGAGCT TGGTTGACGG
CGAGGCCCGC ATATACGAGG CGTAACCAGA ACTGGTTGAG ATAGTCTCGA ACCAACTGCC
5881 CAATTTTCGAT GATGCAGCTT GGGCGCAGGG TCGATGCGAC GCAATCGTCC GATCCGGAGC
GTTAAAGCTA CTACGTCGAA CCCGCGTCCC AGCTACGCTG CGTTAGCAGG CTAGGCCCTCG
5941 CGGGACTGTC GGGCGTACAC AAATCGCCCC CAGAAGCGCG GCCGTCTGGA CCGATGGCTG
GCCCTGACAG CCCGATGTG TTTAGCGGGC GTCTTCGCGC CGGCAGACCT GGCTACCGAC
6001 TGTAGAAGTC GCGTCTGCGT TCGACACAGG TGCGCGTTCT CGCGGCCATA GCAACCGACG
ACATCTTCAG CGCAGACGCA AGCTGGTCCG ACGCGCAAGA GCGCCGGTAT CGTTGGCTGC
6061 TACGGCGTTG CGCCCTCGCC GGCAGCAAGA AGCCACGGAA GTCCGCCCCG AGCAGAAAAT
ATGCCGCAAC GCGGGAGCGG CCGTCGTTCT TCGGTGCCTT CAGGCGGGCC TCGTCTTTTA
6121 GCCCACGCTA CTGCGGGTTT ATATAGACGG TCCCCACGGG ATGGGGAAAA CCACCACCAC
CGGGTGCGAT GACGCCCCAA TATATCTGCC AGGGGTGCCC TACCCCTTTT GGTGGTGGTG

FIG. 1E

6181 GCAACTGCTG GTGGCCCTGG GTTCGCGCGA CGATATCGTC TACGTACCCG AGCCGATGAC
CGTTGACGAC CACCGGGACC CAAGCGCGCT GCTATAGCAG ATGCATGGGC TCGGCTACTG
6241 TTACTGGCGG GTGCTGGGGG CTTCCGAGAC AATCGCGAAC ATCTACACCA CACAACACCG
AATGACCGCC CACGACCCCC GAAGGCTCTG TTAGCGCTTG TAGATGTGGT GTGTTGTGGC
6301 CCTCGACCAG GGTGAGATAT CGGCCGGGGA CGCGGCGGTG GTAATGACAA GCGCCCAGAT
GGAGCTGGTC CCACTCTATA GCGGCCCCCT CCGCCGCCAC CATTACTGTT CGCGGGTCTA
6361 AACCAATGGG ATGCCTTATG CCGTGACCGA CGCCGTTCCTG GCTCCTCATA TCGGGGGGGA
TTGTTACCCG TACGGAATAC GGCCTGGCT GCGGCAAGAC CGAGGAGTAT AGCCCCCCT
6421 GGCTGGGAGC TCACATGCCC CGCCCCCGG CCTCACCCCTC ATCTTCGACC GCCATCCCAT
CCGACCCTCG AGTGACGGG GCGGGGGCCG GGAGTGGGAG TAGAAGCTGG CGGTAGGGTA
6481 CGCCGCCCTC CTGTGCTACC CGGCCGCGCG GTACCTTATG GGCAGCATGA CCCCCAGGC
GCGGCGGGAG GACACGATGG GCGGCGCGC CATGGAATAC CCGTCGTACT GGGGGGTCCG
6541 CGTGCTGGCG TTCGTGGCCC TCATCCCGCC GACCTTGCCC GGCACCAACA TCGTGCTTGG
GCACGACCGC AAGCACCGGG AGTAGGGCGG CTGGAACGGG CCGTGGTTGT AGCACGAACC
6601 GGCCCTTCCG GAGGACAGAC ACATCGACCG CCTGGCCAAA CGCCAGCGCC CCGGCGAGCG
CCGGGAAGG CTCTGTCTG TGTAGCTGGC GGACCGGTTT GCGGTCGCGG GGCCGCTCGC
6661 GCTGGACCTG GCTATGCTGG CTGCGATTCTG CCGCGTTTAC GGGCTACTTG CCAATACGGT
CGACCTGGAC CGATACGACC GACGCTAAG GCGCAAAATG CCCGATGAAC GGTTATGCCA
6721 GCGGTATCTG CAGTGCGGCG GGTCTGGCG GGAGGACTGG GGACAGCTTT CGGGGACGGC
CGCCATAGAC GTCACGCCGC CCAGCACCGC CCTCTGACC CTTGTCGAAA CCCCCTGCCG
6781 CGTGCCGCCC CAGGGTGCCG AGCCCCAGAG CAACGCGGGC CCACGACCCC ATACGGGGGA
GCACGGCGGG GTCCCACGGC TCGGGGTCTC GTTGCGCCCC GGTGCTGGGG TATAGCCCCT
6841 CACGTTATTT ACCCTGTTTC GGGCCCCCGA GTTGCTGGCC CCAACGGCG ACCTGTATAA
GTGCAATAAA TGGGACAAAG CCCGGGGGCT CAAACGCGCTC GGGTTGCCG TGGACATATT
6901 CGTGTGTTGCC TGGGCCTTGG ACGTCTTGGC CAAACGCGCTC CGTTCATGC ACGTCTTTAT
GCACAAACGG ACCCGGAACC TGCAGAACCG GTTTGCGGAG GCAAGGTACG TGCAGAAATA
6961 CCTGGATTAC GACCAATCGC CCGCCGGCTG CCGGGACGCC CTGCTGCAAC TTACCTCCGG
GGACCTAATG CTGGTTAGCG GCGGCGCGAC GGCCCTGCGG GACGACGTTG AATGGAGGCC
7021 GATGGTCCAG ACCCACGTCA CCACCCCGG CTCCATACCG ACGATATGCG ACCTGGCGCG
CTACCAGGTC TGGGTGCAGT GGTGGGGGCC GAGGTATGGC TGCTATACGC TGGACCGCGC
7081 GTGCAAACGG GCCCTCTACC CCCTCCGATT GACTCAGCTC TTAAGCGATC TCCCGGGATA
7141 TCTATAGTGT CACCTAAATG CTAGAGCTCG CTGATCAGCC TCGACTGTGC CTTCTAGTTG
AGATATCACA GTGGATTAC GATCTCGAGC GACTAGTCGG AGCTGACACG GAAGATCAAC
7201 CCAGCCATCT GTTGTGTTGCC CCTCCCCCGT GCCTTCCTTG ACCCTGGAAG GTGCCACTCC
GGTCGGTAGA CAACAAACGG GGAGGGGGCA CGGAAGGAAC TGGGACCTTC CACGGTGAGG
7261 CACTGTCCTT TCCTAATAAA ATGAGGAAAT TGCATCGCAT TGTCTGAGTA GGTGTCATTC
GTGACAGGAA AGGATTATTT TACTCCTTTA ACGTAGCGTA ACAGACTCAT CCACAGTAAG
7321 TATTCTGGGG GGTGGGGTGG GGCAGGACAG CAAGGGGGAG GATTGGGAAG ACAATAGCAG
ATAAGACCCC CCACCCACCC CCGTCCTGTC GTTCCCCCTC CTAACCCTTC TGTATCGTC
7381 GCATGCGCAG GGCCCAATTG CTCGAGCGGC CGCAATAAAA TATCTTTATT TTCATTACAT
CGTACGCGTC CCGGGTTAAG GAGCTCGCCG GCGTTATTTT ATAGAAATAA AAGTAATGTA
7441 CTGTGTGTTG GTTTTTGTG TGAATCGTAA CTAACATACG CTCTCCATCA AAACAAAACG
GACACACAAAC CAAAAAACAC ACTTAGCATT GATTGTATGC GAGAGGTAGT TTTGTTTTGC
7501 AAACAAAACA AACTAGCAAA ATAGGCTGTC CCCAGTGCAA GTGCAGGTGC CAGAACATTT
TTTGTGTTTGT TTGATCGTTT TATCCGACAG GGGTCACGTT CACGTCCACG GTCTTGATAA

FIG. 1F

Title: SELECTION SYSTEMS FOR GENETICALLY MODIFIED
CELL

Applicant: JENSEN, M.

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7561	CTCTATCGAA	GGATCTGCGA	TCGCTCCGGT	GCCCGTCAGT	GGGCAGAGCG	CACATCGCCC
	GAGATAGCTT	CCTAGACGCT	AGCGAGGCCA	CGGGCAGTCA	CCCGTCTCGC	GTGTAGCGGG
7621	ACAGTCCCCG	AGAAGTTGGG	GGGAGGGGTC	GGCAATTGAA	CCGGTGCCTA	GAGAAGGTGG
	TGTCAGGGGC	TCTTCAACCC	CCCTCCCCAG	CCGTAACTT	GGCCACGGAT	CTCTTCCACC
7681	CGCGGGGTAA	ACTGGGAAAG	TGATGTCGTG	TACTGGCTCC	GCCTTTTTTC	CGAGGGTGGG
	GCGCCCCATT	TGACCCTTTC	ACTACAGCAC	ATGACCGAGG	CGGAAAAAGG	GCTCCCACCC
7741	GGAGAACCGT	ATATAAGTGC	AGTAGTCGCC	GTGAACGTTT	TTTTTCGCAA	CGGGTTTGCC
	CCTCTTGGCA	TATATTACG	TCATCAGCGG	CACTTGCAAG	AAAAAGCGTT	GCCCAAACGG
7801	GCCAGAACAC	AGCTGAAGCT	TCGAGGGGCT	CGCATCTCTC	CTTCACGCGC	CCGCCGCCCT
	CGGTCTTGTC	TCGACTTCGA	AGCTCCCCGA	GCGTAGAGAG	GAAGTGCGCG	GGCGGCGGGA
7861	ACCTGAGGCC	GCCATCCACG	CCGGTTGAGT	CGCGTTCTGC	CGCCTCCCGC	CTGTGGTGCC
	TGGACTCCGG	CGGTAGGTGC	GGCCAACCTA	GCGCAAGACG	GCGGAGGGCG	GACACCACGG
7921	TCCTGAACTG	CGTCCGCCGT	CTAGGTAAGT	TTAAAGCTCA	GGTCGAGACC	GGGCCTTTGT
	AGGACTTGAC	GCAGGCGGCA	GATCCATTCA	AATTTTCGAGT	CCAGCTCTGG	CCCGGAAACA
7981	CCGGCGCTCC	CTTGGAGCCT	ACCTAGACTC	AGCCGGCTCT	CCACGCTTTG	CCTGACCCTG
	GGCCGCGAGG	GAACCTCGGA	TGGATCTGAG	TCGGCCGAGA	GGTGCGAAAC	GGACTGGGAC
8041	CTTGCTCAAC	TCTACGTCTT	TGTTTCGTTT	TCTGTTCTGC	GCCGTTACAG	ATCCAAGCTG
	GAACGAGTTG	AGATGCAGAA	ACAAAGCAAA	AGACAAGACG	CGGCAATGTC	TAGGTTTCGAC
8101	TGACCGGCGC	CTACGTAAGT	GATATCTACT	AGATTTATCA	AAAAGAGTGT	TGACTTCTGA
	ACTGGCCGCG	GATGCATTCA	CTATAGATGA	TCTAAATAGT	TTTTCTCACA	ACTGAACACT
8161	GCGCTCACAA	TTGATACTTA	GATTCATCGA	GAGGGACACG	TCGACTACTA	ACCTTCTTCT
	CGCGAGTGTT	AACTATGAAT	CTAAGTAGCT	CTCCCTGTGC	AGCTGATGAT	TGGAAGAAGA
8221	CTTTCCTACA	GCTGAGAT				
	GAAAGGATGT	CGACTCTA				

FIG. 1G